

## CLAIMS

We claim:

1. A method of treating a disorder of the pilosebaceous apparatus of a mammal, comprising administering to the mammal an insulin sensitivity increasing substance (ISIS) in an amount effective to treat the disorder in the mammal, in a manner so as to reach an affected area of the pilosebaceous apparatus.
2. The method of claim 1, wherein said disorder is alopecia.
3. The method of claim 2, wherein treating said disorder comprises at least one of inhibiting, reducing and reversing the loss of hair in said mammal.
4. The method of claim 1, wherein said ISIS is administered topically to the affected site.
5. The method of claim 1, wherein said ISIS is a biguanide.
6. The method of claim 5, wherein said biguanide is metformin hydrochloride.
7. The method of claim 1, wherein said ISIS is administered orally.
8. The method of claim 1, wherein said mammal is a human.
9. The method of claim 1, wherein said ISIS is a thiazolidinedione.
10. The method of claim 9, wherein said thiazolidinedione is selected from the group consisting of troglitazone, ciglitazone, pioglitazone, rosiglitazone, and englitazone.
11. The method of claim 10, wherein said ISIS is troglitazone.

12. The method of claim 1, wherein said ISIS is D-chiro-inositol.

13. The method of claim 1, further comprising administering to said mammal a steroid enzyme inhibitor or inducer (STI) in an amount effective to inhibit or induce the activity of a steroid enzyme in said mammal.

14. The method of claim 13, wherein said steroid enzyme inhibitor or inducer (STI) is selected from the group consisting of a 5-alpha reductase inhibitor (ARI), a 3-alpha hydroxy steroid dehydrogenase inhibitor, and a 17-beta hydroxy steroid dehydrogenase inducer.

15. The method of claim 1, further comprising administering to said mammal an androgen receptor blocking agent (ARB) in an amount effective to block androgen receptor activity in said mammal.

16. The method of claim 15, wherein said androgen receptor blocking agent ARB is a steroidal or a non-steroidal compound selected from the group consisting of cyproterone acetate, flutamide, bicalutamide, nilutamide, RU-58841, canrenone, spironolactone, progesterone, 4MA, ketoconazole, and cimetidine.

17. The method of claim 1, further comprising administering to said mammal both an androgen receptor blocking agent (ARB) in an amount effective to block androgen receptor activity, and an steroid enzyme inhibitor or inducer (STI) in an amount effective to inhibit or induce the activity of a steroidal enzyme in the mammal.

18. The method of claim 1, further comprising administering to said mammal an activity-enhancing agent where any ISIS alone or in combination with an androgen receptor blocking agent (ARB) or steroid enzyme inhibitor or inducer (STI) is to be administered topically, wherein said activity-enhancing agent is administered to said mammal in an amount effective to enhance the activity of either the ISIS alone or in combination with said androgen receptor blocking agent (ARB) and/or said steroid enzyme inhibitor or inducer (STI).

19. The method of claim 18, wherein said activity-enhancing agent comprises at least one substance selected from the group consisting of a penetration-enhancing agent, a vasodilator compound, an anti-inflammatory agent, a glucose/insulin regulating compound, and an endogenous or exogenous effector.

20. A composition for treating a disorder of the pilosebaceous apparatus of a mammal, said composition comprising an ISIS in an amount effective to treat said disorder of said pilosebaceous apparatus in said mammal.

21. The composition of claim 20, wherein said ISIS is a thiazolidinedione.

22. The composition of claim 21, wherein said ISIS is a compound selected from the group consisting of troglitazone, ciglitazone, pioglitazone, rosiglitazone, and englitazone.

23. The composition of claim 20, wherein said ISIS is a biguanide.

24. The composition of claim 23, wherein said biguanide is metformin hydrochloride.

25. The composition of claim 20, wherein said ISIS is D-chiro-inositol.

26. The composition of claim 20, wherein said composition further comprises at least one of an androgen receptor blocking agent (ARB) and an steroid enzyme inhibitor or inducer (STI), wherein said androgen receptor blocking agent (ARB) is present in an amount effective to block androgen receptor activity in said mammal, and wherein said steroid enzyme inhibitor or inducer (STI) is present in an amount effective to inhibit or induce the activity of a steroid enzyme of said mammal.

27. The composition of claim 20, wherein said composition is for topical administration and further comprises an activity-enhancing agent, wherein said activity-enhancing agent is present in an amount effective to enhance the activity of the ISIS alone or in

combination with at least one of an androgen receptor blocking agent (ARB) and a steroid enzyme inhibitor or inducer (STI) in treating the disorder of the pilosebaceous apparatus of said mammal.

28. The composition of claim 27, wherein said activity-enhancing agent comprises at least one substance selected from the group consisting of a penetration-enhancing agent, a vasodilator compound, an anti-inflammatory agent, a glucose/insulin-regulating compound, a glycosylation inhibitor, and an endogenous or exogenous effector.

29. The composition of claim 20, wherein said composition is in the form of a pharmaceutical composition.

30. The composition of claim 29, wherein said pharmaceutical composition comprises an ISIS and at least one of an androgen receptor blocking agent (ARB) and an steroid enzyme inhibitor or inducer (STI).

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